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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,210	06/30/2005	Olivier Dupuis	66345-0036	6344
25269	7590	12/19/2006		
DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005			EXAMINER ABU ALI, SHUANGYI	
			ART UNIT	PAPER NUMBER
			1755	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/541,210	DUPUIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shuangyi Abu-Ali	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>June 30, 2005</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

(1)

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,685,898 to Dupuis et al.

Regarding claim 1, Dupuis et al. disclose a composition of adjustable viscosity comprising a titanium dioxide pigment (col.4, line 22), which has the ability of oxidation-reduction under irradiation, a metallic salt (col.3, lines 40-53), a complexing (sequestering) agent (column 3, lines 43-67), a polymeric resin (col. 1, line 5), a basic compound (col.3, lines 61-66), an organic solvent (col.2, line 20) and water (col.2, line 20).

Regarding claims 2 and 3, Dupuis et al. disclose that a titanium dioxide pigment, such as Tiona®, which has a particle size in the range of 0.2-0.25 microns, is used in the composition (col.4, line 22).

Regarding claims 4-6, Dupuis et al. disclose that palladium chloride or palladium sulfate is used in the composition (col.3, lines 40 and 41).

Regarding claims 7 and 8, Dupuis et al. disclose that the complexing agent may comprise a carboxylic acid, such as for example, succinic acid, mesoxalic acid, tartaric acid, citric acid or like (col.3, lines 45-48).

Regarding claims 9 and 10, Dupuis et al. disclose the use of an acrylic polymer (col. 3, line 61) dissolved completely (col. 4, line 63) in a solvent.

Regarding claims 11 and 12, Dupuis et al. disclose that the composition comprises an alkaline salt or a base, such as potassium hydroxide and sodium hydroxide (col.3, lines 61-67).

Regarding claim 13, Dupuis et al. disclose that methanol or ethanol may be utilized as an organic solvent in the composition (col.2, line 20).

Regarding claim 15, Dupuis et al. disclose deionised water used in the composition (col. 2, lines 35 and 36).

Regarding claim 16, Dupuis et al. disclose a wetting agent, an antifoaming agent and a surfactant such like used in the composition (col. 4, lines 3-5).

Regarding claims 17, Dupuis et al. disclose that the titanium dioxide pigment amount is in the range of 0.01-5%.

Regarding claims 18, Dupuis et al. disclose that the amount of metallic salt is in the range of 0.05-5%.

Regarding claims 19, Dupuis et al. disclose that the concentration of complexing agent is in the range of 0.01-5%.

Regarding claims 20, Dupuis et al. disclose that the resin amount is in the range of 0.1-15%.

Regarding claims 21, Dupuis et al. disclose that the concentration of a base is in the range of 0.1-2.5%.

(2)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No.5, 685,898 to Dupuis et al. in view of U.S. Patent No. 4,622,069 to Akai et al.

Regarding claim 14, Although Dupuis et al. disclose the use of alcohols as the organic solvent, they do not specifically disclose the use of those solvents set forth in applicant claim 14.

Nevertheless, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize another solvent, such as dioxane, aromatic, glycols and acetates, in addition to ethanol or methanol, motivated by the fact that Akai et al., also drawn to compositions for use in the deposition of metal coatings on insulating (ceramic) substrates, disclose that such organic solvents are known and commonly employed in coating compositions col. 6, lines 41-65).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.5, 685,898 to Dupuis et al. in view of US 2004/0037978 A1 to Tsubaki et al.

Regarding claim 24, Although Dupuis et al. disclose that ultraviolet energy used to deposit palladium particle into the coating, they are silent about deposit titanium particle in the coatings.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to using the technique as set forth by applicant, motivated by the fact that Tsubaki et al, also drawn to deposit titanium on to a recording sheet, disclose that a wavelength around 365 nm and a energy level at 2 KJ/cm<sup>2</sup> was used in the coating process ([0147]).

(3)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No.5, 685,898 to Dupuis et al.

Regarding claims 22 and 23, Although Dupuis et al did not specify point out the water or the organic concentration in the composition as applicant set forth in claims 22 and 23. However, it is Examiner's position that selection of an appropriate water and organic solvent concentration would have been within the skill of an ordinary artisan depending on the desired viscosity and solubility of constitutes.

(4)

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Such prior art is listed on PTO-892 A and B.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuangyi Abu-Ali whose telephone number is 571-272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

  
J.A. LORENGO  
SUPERVISORY PATENT EXAMINER